# PROPOSALS

For ENRICHING the

# PRINCIPALITY of *WALES*:

Humbly ſubmitted to the

Conſideration of his Countrymen,

By GIRALDUS CAMBRENSIS.

(J Morgan)

"Whoever can make two Ears of Corn, or two Blades of Graſs to "grow upon a Spot of Ground where only one grew before, will "deſerve better of Mankind, and do more eſſential Service to his "Country than the whole Race of Politicians put together."

GULLIVER's Travels.

*Hoc opus, hoc ſtudium Parvi properemus & Ampli,*
*Si Patriæ volumus, ſi nobis vivere cari.* HOR.

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TO THE

NOBILITY, GENTRY, CLERGY, and YEOMANRY

OF THE

# PRINCIPALITY

OF

# *WALES*;

This ESSAY, calculated for the Improvement and Benefit of that PRINCIPALITY by AGRICULTURE and COMMERCE, is humbly inſcribed by

*Their Well-Wiſher and Servant,*

*London,*
*March*, 1755. C. B

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[illegible]

London,
March, 1795.

C 3

*Turn to the Arts, the uſeful pleaſing Arts*
*Of Cultivation; and thoſe Fields improve*
*Your erring Fathers have left too long deſpis'd.*
*Leave not to Ignorance and low-bred Hinds,*
*That nobleſt Science, which in antient Time*
*The Minds of Sages and of Kings employ'd,*
*Sollicitous to learn the Ways of God,*
*And read his Works in Agriculture's School.*

PUBLIC VIRTUE, *a Poem. By Mr.* Dodſley.

THAT the Wealth of every Nation is proportionable to the * Number and Induſtry of its Inhabitants, is a Truth that will admit of no Diſpute. Whatever therefore



* Sir *William Temple*, in his Obſervations upon the *United Netherlands*, has proved to a Degree of Demonſtration, *that the Ground of Trade cannot be deduced from Havens, or native Commodities, but from the Number, Induſtry and Parſimony of the Inhabitants.* But if a Country, ſuch as that of the *United Netherlands*, which has neither native Commodities, commodious Havens, a wholeſome Air, nor good Water, has been raiſed to an incredible Pitch of Power and Greatneſs, by the Number and Diligence of its People, To what Heighth of Majeſty and Grandeur might not the Inhabitants of *Wales* arrive, who can juſtly boaſt of the fineſt Havens, and all the deſirable Native Commodities, were they to exert the ſame Degrees of Induſtry and Parſimony, that have rendered thoſe *once-diſtreſſed States*, rich, formidable and mighty?

contributes towards increaſing the Number of Individuals in any Country, and has a Tendency to quicken their Induſtry, muſt add to the Wealth and Power of that Country.

THE following Scheme is calculated to promote theſe Ends in the principality of *Wales*. If the Natives of that Country will diveſt themſelves of Prejudice and conſider it with Attention; it is hoped the Reaſonableneſs and Propriety of theſe Propoſals will appear and ſufficiently recommend them to their Approbation. To ſee a better Plan will be the greateſt Satisfaction to me: But to ſee, even this, adopted and happily executed will give me uncommon Pleaſure.

THAT the Principality of *Wales* can juſtly boaſt of many of thoſe Advantages, which are thought to contribute towards rendering the People of any Country numerous, no one will doubt, who conſiders that our Liberties and Properties are ſecured, that all Sects and Parties are tolerated in the free Exerciſe of Religion, according to their reſpective Opinions and Manner of Worſhip, that our Situation is preferable to that of moſt, if not all other Countries, that *Milford* is one of the fineſt Havens in the World, that we have a great

Number

Number of other very convenient Ports, and that we abound in thoſe native Productions, which are juſtly reckoned the Staple Commodities of ſeveral Countries in which Trade and Commerce flouriſh.

If we were nicely to inquire why the Natives withdraw themſelves from a Country that can boaſt of theſe Advantages, and why this Country is ſo thinly inhabited, ſome of the chief Reaſons would appear to be *a Scarcity of moſt of the Neceſſaries of Life, and the Want of domeſtic Induſtry.*

Now whatever Country abounds in the Neceſſaries of Life, muſt alſo abound in the lower Claſs of People. For wherever the Neceſſaries of Life are cheapeſt, thither all Sorts of People, but more particularly the Induſtrious, will reſort. And the more numerous the People of any Country, the more diligent and induſtrious. But the Neceſſaries of Life, if the Directions laid down in theſe Papers are followed, will be cheaper in *Wales* than in any other Part of his Majeſty's Dominions.—An Inducement this, not only to keep our Countrymen at Home, but likewiſe to invite and bring over Others to ſettle amongſt us. The Numbers, who annually

annually withdraw * themſelves from us, and ſpend the Remainder of their Days in *London*, *Briſtol*, *Liverpool*, *Cheſter*, and other Parts of *England*, are incredibly great, and the annual Loſs of their Labour amounts, upon a moderate Calculation, to 24,750 *l.* But theſe Natives, if they could advantageouſly, would gladly be employed in their own Country. In this Caſe they would marry, increaſe and multiply; and the Coming over of *Engliſh*, *Iriſh*, &c. would make, probably, no inconſiderable Addition to the Number of our Inhabitants. Our Improvements would then become the Subject of Admiration, would raiſe the World into a Fit of Wonder; and what was once ſaid, upon a different Occaſion, might with ſtrict Propriety be applied to us—*See how the* Britons *flouriſh!*

As the Means of producing this deſirable Abundance, I take the Liberty of laying before my Countrymen, *A Method for improving their Eſtates.*

——— *Non modo eſt ars, ſed etiam neceſſaria ac magna; ea eſt Scientia, quæ docet quæ ſint in quoquo agro ſerunda ac faciunda, quæque terra maxumos perpetuo reddat fructus.* Varr.

LAND

* ——— non ullus aratro
Dignus honos: ſqualent abductis arva Colonis. VIRG.

LAND, upon a Medium, is lett in Two of the moſt fertile Counties in *Wales*, at * three Shillings an Acre. If it appears that this was the Caſe, not above thirty Years ſince, in any of the Counties of *England*, where at preſent the Land, upon an Average, is lett at ten Shillings an Acre; it will not be unreaſonable to ſuppoſe, as like Cauſes are productive of like Effects, that the ſame Improvements may be made in *Wales*, provided our Landlords and Farmers will purſue the Methods here recommended, which are uſed, with incredible Succeſs, in many Parts of *England*.

WHAT is here aſſerted, with Regard to the Improvement of Lands in *England*, is Matter of Fact; againſt which there is no Diſputing. But if any one of leſs Experience

* Beſides the Fertility of theſe Counties, they afford all the Means of Improvement that have been applied in the *Engliſh* Counties, wherein theſe Improvements have been made.

* It may, probably, be objected to this Eſtimate, that we have Lands, near large Towns, which lett at 10, 12, 15, nay 20 s. an Acre; and conſequently that Lands in General ſhould be laid higher. Tho' the Premiſes are granted, yet ſuch a Conſequence is by no Means deducible from them. For the Quantity of Land lett at thoſe high Rates is very inconſiderable; whereas the Number of Acres lett at 2 s 6 d, 2 s, 1 s 6 d, 1 s, 6 d, and under that are incredible: So that I am perſuaded I ſhould have been nigher the Truth, if I had laid the Lands of the whole Principality at Half a Crown an Acre.

ence doubts the Truth of it, let him appeal to any of thoſe Gentlemen, of our Country, who are competent Judges in theſe Matters, and he will be abundantly convinced.

THE principal Means, recommended in theſe Sheets, for improving Eſtates in *Wales*, and enriching the Inhabitants, are the following ones—*Claying and Marling*,—*Turnep-ſowing*,—*Fattening of Cattle*,—*And the Sowing of Clover and Rye-graſs Seeds.*

WHERE the Lands are too light or ſandy to produce good Crops, it will be proper to give them a Coat of Clay, of the yellow or blue Kind, which is the beſt, tho' the brown or dark Sort will do. Upon the other Hand, where they are too heavy, cold or moiſt, they may be covered with a brown or white Marl. Forty or Fifty Loads an Acre are ſufficient for ſome Sorts of Lands: For others 60 or 70 will be found neceſſary. But, upon a Medium, the Quantity may be laid at 60 * Cart Loads an Acre.

GREAT

* As this Method of improving is attended with a conſiderable Expence; it has been, and ſtill continues to be a Rule with many Landlords to grant their Tenants a Leaſe of their reſpective Farms, for the Term of 21 Years. And to encourage them, ſome Landlords engage to pay for the Digging, Tilling and Spreading the Quantity of Clay or Marl neceſſary for a certain Number of Acres, annually, for the Space of ten or twelve Years. Where the Tenants are neceſſitous, 'tis certainly adviſable to cloſe with

GREAT are the Improvements to be made, in all Sorts of Lands, by this ſingle Article of Claying and Marling.

THERE are, however, three Sorts of Lands, where theſe Methods will be found uncommonly ſucceſsful, viz. *Old Heath-ground, Lands that have been impoveriſhed, and quite worn out with continual Plowing, producing more Weeds than Corn,—And old Paſture-ground, whoſe Surface is rendered uneven by Ant-hills, or is covered over with beggarly Moſs.*

BUT the Advantages ariſing from this Method are moſt remarkable in *Old Heath-ground*, or that which has laid Waſte for a great Number of Years, and perhaps has never

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with ſuch a Propoſal; by which, however, tho' it has a very ſpecious Appearance, the Landlord is always the greateſt Gainer, But yet, ſuch are the Advantages ariſing from it to the Tenant, that I could wiſh the Land-owners in *Wales* would aſſiſt their Tenants in the ſame Manner. For under theſe Circumſtances, Tenants who have been induſtrious and of approved Fidelity, by the Time their Leaſes have been expired, Thoſe who have begun with 3 or 400 Pounds, have often been found to be worth ſo many Thouſands, and ſometimes 10, 12 or 15000 Pounds. That the Value of Eſtates ſhould be raiſed, in the Proportion, abovementioned, (vid. P. 6.) when the Tenant, at the ſame Time, thus gets Eſtates, is almoſt incredible, eſpecially if we conſider that Hundreds of theſe Farms were uncultivated and overgrown with Fern, &c.

*Negletis urenda filix innaſcitur agris.* HOR.

never been ploughed at all, nor of any other Uſe but as Sheep's Walk or Warren. This Ground, of all others, will produce the greateſt Crops, and anſwer the Charge of Claying and Marling beſt.

The Method to be taken with this Sort of Ground is, To plough it up in Winter, by Reaſon of the Moiſture of that Seaſon, and that the Flag or Surface may have Time to rot, during the Time of Claying or Marling, before it be ſown either with Turneps at Midſummer, or with Wheat or Rye at Michaelmas. It ſhould be ploughed and well harrowed four Times before it is ſown with Turneps, and clayed or marled after the firſt or third Ploughing, juſt as it ſhall be moſt convenient for the Farmer. Either Method may be choſen. But if the Land be clayed after the firſt Ploughing, the Clay and Mould will incorporate the better, by Means of the frequent Ploughings that are to ſucceed, and be more likely to produce a good Crop.

If Turneps ſhould be ſown about * Midſummer, upon Lands thus managed, they may generally without † Tath or Dung: But if

* The propereſt Times for ſowing all Sorts of Grain are as follows; Rye in September; Wheat in October; Oats and Peaſe in March; Barley in the Beginning of April.

† Is the Dung and Urine of Sheep, &c.

if Wheat or Rye about Michaelmas; then it will be proper either to fold Sheep one Night on every Part of the Ground, or to carry on 10, 12, or 15 Cart-loads of Dung. This with about 60 Loads of Clay or Marl, drawn by four or five able Horſes, will ſeldom or never fail to produce extraordinary Crops. And the Land, which before, perhaps, has not been worth Six-pence an Acre, by this Method, will be made worth ten or twelve Shillings.

When Turneps are the firſt Crop of this new-made Land, they are to be fed off by Sheep or Bullocks, or Both, whoſe Treading more intimately mixes the Clay with the natural Soil, and ſeparates its Particles in ſuch a Manner, as to give a more eaſy Entrance for the tender Fibres of the Corn to extract its Virtue. Beſides this, and which is of great Conſequence, the Tath or Dung and Urine of Bullocks, but eſpecially of Sheep, abounds with a ſaline and ſaponaceous Quality of experienced Service, and well known to contribute much towards Vegetation. So that Barley-crop, which ſhould always ſucceed the Turneps, upon Land thus ordered, may be ſown with the greateſt Aſſurance of Succeſs. Ten or Twelve *,



* A Comb is equal to 4 Buſhels, or what goes in *Wales* by the Name of Têl.

Combs an Acre have been produced by this Manner of improving Land, of no more Value, in an un-improved State, than what was mentioned above.—An Increaſe highly ſufficient to anſwer the Owner's or the Farmer's Charge; an Increaſe that redounds to the Reputation, as well as Profit, of all the Huſbandmen who practiſe this Method; and a very great Encouragement to others to try the ſame.

The Ground ſhould be ploughed three Times for Barley; *i. e.* twice ploughed and harrowed, to make it clean and light; and then the Barley ſown and turned in with the Plough. Three or four Days afterwards, the ſame Ground ſhould be ſown with Clover, about ten Pounds an Acre; or, which ſuits this Sort of Land of which I am ſpeaking beſt, being for the moſt Part of a light Nature, about ſeven or eight Pounds of Clover-ſeed with a Peck of black and white Nonefuch, or what is commonly called Rye-graſs. Either of theſe helps to thicken the Sett, makes the Clover, which alone is not, a ſafe and rich Paſture for Cattle, and comes on ſomewhat earlier in the Spring than Clover alone. If the Ground be of a ſtiff and deep Soil, Clover alone is ſufficient, becauſe the Roots ſtrike deep and delight in a Soil of

that

that Sort. Two good Crops of Clover may be had in one Seaſon; or if it is fed, it affords great Plenty of Graſs, far exceeding the beſt old Paſture-land. Wheat ſhould generally be ſown after Clover, and it will commonly produce Crops of equal Goodneſs to thoſe upon Ground thoroughly Summer-tilled. The Clover-land ſhould be covered with Dung, and *that* turned in with the Plough, the Wheat ſown above and harrowed twice over. If Rye-graſs be mixed with the Clover, the Land ſhould be ploughed twice, before the Wheat is ſown, in order to kill the Rye-graſs Roots, otherwiſe they are apt to grow up with the Wheat and injure the Crop. After Wheat, Turneps ſhould ſucceed again, and ſo on in a continual Round.

THIS is the beſt and moſt approved Method of Farming,----a Method which ſeldom fails of producing good Crops, and never balks the Expectation of the Farmer. There are, indeed, other Methods in Practice, ſuch as taking a Crop of Peaſe or Oats after Barley: But this cannot be done without impoveriſhing the Land, and giving an Opportunity for many Weeds to ſpring up, and making it very foul.

I HAVE been ſpeaking of the Advantages

tages of Claying or Marling old Heath-ground, ſuch as has been almoſt uſeleſs, and has never, or however not for a long Time, been ploughed. Inſtead of Brakes, Furz, or Ling, you may have the firſt Year a Crop of Turneps worth 30 or 40 Shillings an Acre; the next Barley worth 50 Shillings or three Pounds; then Clover, or Clover and Rye-graſs worth two Guineas an Acre; and a Crop of Wheat worth four or five Pounds. Very great Advantages indeed! And altho' Claying or Marling be a conſiderable Expence, amounting to 25 or 30 Shillings an Acre; yet that Charge is anſwered and repaid, even in the firſt Crop; but more abundantly afterwards, ſuch Ground producing good Crops for twenty Years ſucceſſively, the Virtue of Clay being known to laſt ſo long. Such are the Benefits of Claying old Heath-ground, which has not, for Time immemorial, been ploughed.

VERY ſimilar, tho' not quite equal, are the Advantages of Claying Lands that have been impoveriſhed, and quite worn out with continual Plowing, producing more Weeds than Corn.

ITS Effects are very conſpicuous the firſt Year. The Crop is incredibly better; and the

the Growth of Weeds, ſo common and detrimental to poor Land, is checked. This Sort of Land may be clayed immediately after Harveſt, that the Clay may be expoſed to the Winter's Froſt, which will make it ſufficiently tender and mellow, and diſpoſe it to mix better with the natural Soil.—Or it may be clayed after the Barley-crop is ſown. The Land, deſigned for Turneps at that Time, being ploughed twice or thrice, after the Clay is laid on, requires but one Earth, and then the Turnep-ſeed is immediately ſown. If theſe Turneps are houghed once or twice over, the Weeds are ſo checked as never to appear in like manner after. So that ſowing Turneps for the firſt Crop after Claying is certainly the moſt prudent Method: For then the Barley that follows will be clean, and the Land in right order to receive Clover and Rye-graſs Seeds, with which it ſhould be laid down for a Year or two; and then it will riſe fit for Wheat. For it is an indiſputable Maxim, that if Land be laid down foul, it will be found ſo, when it comes again to be ploughed.

To plough up old Paſture-ground, when its Surface is rendered uneven by Ant-hills, or is covered with a beggarly Moſs, is a moſt excellent Method. It ſhould be ſown

with

with white Peaſe or Oats in the latter End of February, or the Beginning of March. If theſe take, and prove a good Crop, a Stop is thereby put to the Growth of all pernicious Weeds, the Land is mellowed, and becomes fit for Wheat the Michaelmas following. As ſoon as the Crop is off, whether Peaſe or Oats, the Land ſhould be broke up, that the Grain, which is ſcattered in the Time of Harveſt, may have Time to ſpring before the Wheat is ſown, elſe they grow together, and are injurious to each other.

After Wheat, Turneps, then Barley: And if the Ground be deſigned for Paſture, continually afterwards, Hay or natural Graſs-ſeeds are proper to be ſown; ſomething more in Proportion than was mentioned above. But becauſe theſe are often mixed with Seeds of a different Kind, neither good in their Nature nor eaſily diſtinguiſhed, it may be as well to ſow Clover-ſeed together with black and white None-ſuch and white Suckling, which make a moſt delicious Feed, and ever remain better than what the old Land produced before.

These four Crops of Peaſe or Oats, Wheat, Turneps and Barley are all pro-

duced without Tath or Dung, the Ground greatly improved, the Surface of it made level and beautiful, and the ſucceeding Paſture more in Quantity, and better in Quality. This Method conſequently recommends itſelf to the Inhabitants of that Principality for whoſe Sake theſe Obſervations were made.

THE Leaſes, indeed, even in Counties where Farming is well underſtood, generally prohibit the Breaking up of this Sort of Ground, under the Penalty of Five Pounds an Acre. But I think without Reaſon: For there are many Thouſands of Acres capable of Improvement by this Method, of being rendered more beautiful to the Eye, and much more beneficial both to the Landlords and the Tenants.

THE Land by this Means would let for more; and it would be a more equal Way of managing it; becauſe it would give each Part of the Ground, which has continually been under the Plow, Time to reſt and recover its Strength and generating Quality.

IT muſt, however, be remarked in Relation to old Paſture-land, that if it be not ſufficiently dry, it will never quit the Coſt to break it up. There are large Parcels of this

Sort in moſt Counties, where Clay, or Brick-earth lies ſo exceedingly near the Surface, that there is ſcarce Mould enough to be raiſed for the Nouriſhment of Corn. Beſides its Roots are ſo ſoaked in Wet, becauſe it cannot ſink through Clay, that it, in a great Meaſure, periſhes. This Sort of Ground, for theſe Reaſons, produces the leaſt Graſs, and is the lateſt of any in the Spring before it is fit ſeed.

BEFORE I proceed to the other Particulars, it will be proper to take Notice of the * Wheel-plow, which, according to the Opinion of many very good Judges, is greatly preferable to all other Sorts. But, if I am not miſtaken, the Foot-plow is equally ſerviceable, with Regard to Expedition and a neat Manner. Each of them, however, is drawn by two Horſes a-breaſt, which is, by Experience, that ſafeſt Guide, found, in many Counties, to be a Strength ſufficient to break up the heavieſt Land; which may ſerve to ſhew the Inexpediency of Teams of Oxen; and the Neceſſity of laying that abſurd Method aſide. One Man, with two Horſes,

* *Dicendum & quæ ſint duris agreſtibus arma;*
*Quis ſine nec poſſent ſeri, nec ſurgere meſſes.*
*Vomis, & imflexi primum grave robur aratri,*

*Omnia quæ multo ante memor proviſa repones,*
*Si te cigna manet divini gloria ruris.* VIRG.

Horſes, can plough twice the Ground, in the ſame Space of Time, that a Man, who muſt have a Boy to drive the Oxen, can with a Horſe and two Yokes of Oxen. The Expence of keeping two Horſes is conſiderably leſs than that of keeping four Oxen and an Horſe. And the Horſe ſubſtituted in the Room of the Oxen may be ſerviceable upon a Variety of other Occaſions. To theſe Advantages may be added that of ſaving a Boy's Wages and his Board.

In breaking up the Ground the firſt Time after it has been clayed or marled, too great a Depth ſhould carefully be avoided. Between four and ſix is a ſufficient Depth; but a greater than ſix Inches ſhould never be taken.

Let us now conſider the Culture of Ground for Turneps. A * looſe, ſandy Soil is the propereſt for them: But where it happens to be a denſe, heavy One, the Parts may be ſeparated, and the Soil rendered lighter, by the laying on of Sand, according to the Practice of many Farmers, who are ſituated on the Sea Shore. If the Land is light, it muſt have three Earths; but, if heavy, † four.



* *Solumutre & ſolutum res utraq;* (ſpeaking of Rapes and Turneps) *deſiderat, nec denſa naſcitur humo.* Colum. 199.

† *Subactum ſolum pluribus iterationibus aratri vel ruſtri, &c.* Id.

The firſt Earth, in General, ſhould be given in *March*; the ſecond after Barley-ſowing is over; the third a Fortnight after; and the Fourth a Fortnight after that. Turnep-ſeed in Ground that is remarkably dry may be ſown in the Middle of *May*; tho' in ſome Places 'tis the general Rule to ſow them from the 4th of *June* to the 27th. But thoſe ſown from the 14th to the 25th are thought to do the beſt.*

It requires a good deal of Practice to ſow † Turnep-ſeed well. A ſkilful and experienced Perſon will ſow a whole Acre with a Pint; whereas a Perſon, not uſed to this Buſineſs, will hardly make a Quart or three Pints do.

The Houghing of Turneps requires a particular Conſideration. It is a Rule, in all Parts where the Method here recommended prevails, to have a Hoe, whoſe Helve or Shaft is three Foot and an Half or four Foot long, and whoſe Head is eleven Inches broad; and

* *O. S.*

† As Farmers Servants and Day-labourers have not been uſed to ſow and hough Turneps; it will be proper for three or four Gentlemen, for the Benefit of their Tenants, to hire a Journeyman Gardener for nine or ten Weeks. And if he makes it his Buſineſs to direct one Farmer one Half Day, and Another another, the Myſtery will be revealed to Half a County, by the Means of one Man, in one Seaſon. Tho' I cannot help thinking but that I have been ſufficiently clear and explicit upon this, as well as every other Particular, to ſuperſede the Neceſſity of any ſuch Aſſiſtance.

and four, or not more than four Inches and an Half deep. And the Diſtance of the Turneps left for a Crop, One from another, every Way, ſhould be fourteen or fifteen Inches. Turneps ſhould be houghed twice; the firſt Time, a Month or five Weeks after they are ſown; and the ſecond Time, about a Fortnight afterwards. Tho' the Expence of thus Houghing them twice, is not leſs, in ſome Places, than five, ſix or ſeven Shillings an Acre; yet the Goodneſs and great Value of the Crops make very ample Amends for this great Expence. People who have attempted, in ſeveral Parts of this Kingdom, the Propagation of Turneps, have deſpiſed the Directions given them about Houghing, probably, on Account of the great Expence of it; and their Endeavours, conſequently, have never been attended with Succeſs. But if Turneps are ſuffered to grow up without Houghing, they are perfectly choaked by Weeds, and can never be of any Size. Whereas if they are houghed, in the Manner here directed, the following Conſequences muſt flow from it. The Ground will be cleared of Weeds, greatly enriched and meliorated; and the Apple of one Turnep will be larger, more juicy, and in every Reſpect preferable to the Apples of twenty Turneps that are never houghed. If therefore

fore any of the Perſons, for whoſe Service theſe Papers are drawn up, ſhould endeavour to cultivate the growth of Turneps, let them carefully obſerve the Directions here given about Houghing, otherwiſe their Expectations, how ſanguine ſoever, will infallibly be diſappointed. But if they follow this Advice, their Ground will be like a well-cultivated Garden, with Regard to Weeds and Richneſs of Soil. They will have fine Feed in the Depth of Winter, when there is no Graſs, and when Hay is frequently very ſcarce. And this Food, I mean Turneps, is preferable to both: For it keeps the Bodies of Beaſts cool, and fattens them incredibly, much faſter than the fineſt Hay. It will, however, be very proper to give them a little Hay, every Night and Morning, when the Weather is very inclement and ſevere. If the Crops of Turneps is in low, moiſt Ground, it will be the beſt Way to pull them up, and feed the Bullocks with them in ſome dry Cloſe, that is contiguous. But when the Turneps are in hilly, light Grounds, the beſt Way will be to detach and fence a Part of the Encloſure with Hurdles, and to turn the Stock that is making up for Market into that ſeparated Part; and when they have fed upon the Turneps in this Spot, not too long, the ſame Method muſt be continued

tinued till the whole Cloſe is fed off. If this Direction is not obſerved, a ſmall Number of Bullocks will tread and deſtroy a large Tract of Turneps in a Day or Two, and will be perfectly cloyed with them; whereas if they are permitted to eat of but a ſmall Portion, at a Time, every Spot even of the ſame Field, becomes a freſh Courſe, and will be a Sort of Whet to them. The Reaſon why Turneps are to be pulled up in a ſtiff, heavy Soil, and fat upon ſome Ground adjoining, is becauſe low, moiſt Ground ſhould be trampled as little as poſſible, to prevent too great a Coheſion of the Parts: But when the Soil is looſe and ſandy, it cannot be trod too much: For the more it is hardened and cemented, the better, the more excellent the Compoſt. And where the Soil is light, the Feeding the Turneps off will greatly enrich it.

Bullocks that are fed in a Houſe will be fat much ſooner than thoſe that are fed abroad. Twenty Acres will fatten a Score in a Houſe; and the Offal will be ſufficient for a Score Sheep and as many Steers. Leſs than thirty Acres will not fatten the ſame Number in the open Field. Nay ſome Bullocks will require thirty-five or forty Acres. But then it will take up two Men's Time and a Horſe to tend thoſe in the Houſe: And the original Expence

of

of a Bullock Houſe, the conſtant one of keeping it in Repair, and the Carrying out the Dung are very conſiderable: ſo that I am inclined to determine in Favor of Feeding *ſub Die*. But take which you will, the Gain, upon a Medium, will be five Pounds a Bullock.

As ſending Bullocks away lean is a great Loſs to the Inhabitants of any Country, I muſt beg Leave to dwell a little longer upon this Particular, which, when we ſhall have taken a View of the many and great Advantages ariſing from fattening them before they are ſent away, will appear to deſerve our Conſideration more than may at firſt be imagined. Bullocks that are bought in lean in the Month of *September* or *October*, and fed upon Turneps till the Beginning of *April*, and then upon Clover and Rye-graſs till the latter End of *May* or the Middle of *June*, will pay to a careful and judicious Perſon, from four to ſeven Pounds an Head for Keeping, Attendance and Intereſt of Money; the Land, which has been impoveriſhed by a wrong Management and Want of Manure, will by this Means be greatly improved, and of Courſe produce much better Crops. And, indeed, it is clear, beyond all Diſpute, that Farming without the Aſſiſtance of Grazing or a Dairy cannot

cannot be a very advantageous Buſineſs. But yet the Generality of Farmers, who proceed in the Manner here directed, prompted to it by Cuſtom and Example, without conſidering Cauſes and Effects, aſcribe their great Succeſs to the Growing of Corn alone, without tracing, tho' the more remote and leſs apparent, yet the greateſt, not to ſay the only Cauſe of it.

THERE is but one Objection againſt purſuing this Method of fattening Bullocks in *Wales*, *viz.* The great Diſtance from the Metropolis. The Driving fat Bullocks ſuch a Number of Miles, it is apprehended, would reduce them ſo much as to render them unſaleable. This Aſſertion is more plauſible than true. But if it was really Fact, the Inconveniency might be * removed in the following Manner. When the Drove of Beaſts is got within forty or fifty Miles of *London*; the Drover may be directed by his Employers to halt for ten Days or a Fortnight: By this Means their Beaſts will be in better Order, when they come to *Smithfield*, than thoſe

 whoſe

* And if there was a conſtant Supply of fat Bullocks, Markets would be created in *Wales*, as they have been in other Parts of the Kingdom, where People, even thoſe of large Subſtance, lived the greateſt Part of the Year upon Salt Meat, which lays a Foundation for the Scurvy, and other Chronical Diſeaſes, that render Life very burdenſome, not to ſay intolerable.

whoſe whole Journey is not above 130 or 140 Miles.

But to ſhow farther the Expediency of fattening our Bullocks at Home, and to put the Matter in the ſtrongeſt Light, I beg leave to mention a Fact, which happened about five Years ago, when a Parcel of lean *Welſh* Bullocks, which came from the Iſle of *Angleſea*, were ſold at *Barnet* near *London*, and after that ſent a Hundred and twenty Miles from *London* to be fattened. By the Time they were brought to the Grazier's, they ſtood him in 6*l.* 10*s.* a Bullock. After they were fattened, they were ſent to *Stevenage*, where they were ſold, one with another, at twelve Pounds a Bullock. And the Grazier ſaid that he never fed any Bullocks, whether *Scotch* or *Engliſh*, that anſwered ſo well. I have often heard Others, as good Judges in theſe Matters as any Men whatever, ſay that that they preferred the *Welſh* to all other Bullocks.

Now if the *Welſh* Farmers, inſtead of ſending away their Bullocks lean, would fatten them in *Wales*, they could never fail of a more advantageous Market than all other People whatever. For they would be able to feed vaſtly cheaper in *Wales* than the *Engliſh*

*liſh* Graziers poſſibly can; and they would buy the Bullocks, for which the *Engliſh* give Six Pounds ten Shillings, for five Pounds. So that if Bullocks fed in *Wales* were ſold fifty Shillings a Bullock cheaper in *Smithfield* than thoſe of the ſame Size fed in *England*, the *Welch*-Graziers would ſtill be greater Gainers than the *Engliſh*. But an *Engliſh* Grazier, who has 400 Acres of Ground in his Hands, gets, one Year with Another, 120*l.* by this one Branch of his Trade. A *Welch* Grazier therefore, who occupies the ſame Number of Acres, might ſtill be a much more conſiderable Gainer.

INSTEAD then of ſending away our Bullocks lean, let us not only feed *them* at Home, but buy from *Scotland* and * *Ireland* for the ſame advantageous Purpoſe.

THOSE Counties in *Wales*, which are the remoteſt from *Scotland*, are but a Little, if any Thing, farther ſituated from it, than the *Engliſh* Counties, in which great Droves of *Scotch* Cattle are annually brought, and afterwards fattened for the uſe of our great Metropolis. For the Future therefore it is hoped Perſons

* I am aware that the Importation of black Cattle is, at preſent, prohibited by an Act of Parliament. But if five or Six of our Repreſentatives would move the Houſe of Commons for a Repeal of it, I am of Opinion that a Propoſal, ſo conducive to the Intereſt of the Nation, would not be oppoſed.

Perſons of Fortune will depute Men of Integrity and Experience to go into the North to buy in large Numbers of lean Bullocks.—— Suppoſe, at firſt, we bring Home but 5000 every Autumn, and that we get no more than 3*l.* a Bullock by them; the whole Gain, beſides the Improvement of ſeveral Thouſands of Acres of Land, would be £. 15,000 0 0

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|---|---|
| The ſame N° from *Ireland*, | 15,000 0 0 |
| 10,000 Home-breds, at 4*l.* a Bullock, Gain | 40,000 0 0 |
| Butter —— —— | 20,000 0 0 |
| Corn that might be exported upon a very moderate Calculation | 400,000 0 0 |
| £. | 490,000 0 0 |

*N. B.* Sheep, Wool, Hogs, *&c.* are not taken into the Account. And the Advantages, ariſing from the three firſt Articles, are laid ſo low, that, if the Gentlemen and Farmers in *Wales* were unanimouſly to proceed upon this Plan, they might be laid, without Exaggeration, at three Times the Sum, or a Million and a Half.

If we fattened our Bullocks, Sheep and Hogs at Home, we ſhould, in all Probability, reap greater Advantages than thoſe already mentioned. As *Milford* is the ſafeſt Harbor

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in his Majeſty's Dominions, and might, upon the Plan here propoſed, exhibit Proviſions of every Sort cheaper than the Ports of *London*, *Southampton*, *Portſmouth*, *Plymouth*, or even *Cork*; why might we not hope, if an honeſt and impartial Repreſentation of that Truth was laid before the Lords of the Admiralty, that our Ships of War would be ordered to take in their Proviſions at *Milford*? It would be very practicable to furniſh our Navy with Proviſions of every Kind, at this Place, 15 *per Cent.* cheaper than in any of the Places where the King's Ships are now victualled. And if the *Briſtol* and *Liverpool* Merchant-Ships could once be accommodated in this Harbor, with all, as they can, even now, with ſome Neceſſaries, upon eaſier Terms than they can at other Ports, the Demands at this Place, not only for the Neceſſaries, but even for the Conveniencies and Elegancies of Life, would be incredible. But it is beſide my Purpoſe to point out the many Advantages that would ariſe to the Principality of *Wales*, all the Weſt, and a great Part of the North of *England*, from a flouriſhing Trade at *Milford*, that being undertaken by a conſiderable Merchant in *London*, a Native of *Wales*, who intends very ſhortly to publiſh his Thoughts upon this important Subject. In the mean Time our Countrymen will do well to peruſe Mr. *Whitaker*'s

*Whitaker's* Sentiments upon it. I have not the Honor to be acquainted with that Gentleman; but from a View of his Plan, he appears to be a Perſon of uncommon Sagacity and very enlarged Way of thinking. And I heartily hope every Gentleman, who has it in his Power, will facilitate his laudable Endeavors, as much as poſſible.

But, *Ne Sutor ultra Crepidam*— I will confine myſelf to that Subject which my Situation in life has given me Opportunities to * ſtudy both in Theory and Practice.

Let us now conſider the Advantages ariſing from Sowing Clover and Rye-graſs Seeds. They are indeed, ſo great, that Little or Nothing is to be done in Farming without them. By laying down a Piece of Ground, in the Manner above mentioned, with Clover or Rye-graſs, or rather with a Mixture of both, in the Proportion of Eight Pounds of Clover and Half a Peck of Rye-graſs to an Acre, the Farmer will always be ſure of fine Crops. For as frequent Reſt is, by this Means, given to the Land, it muſt of Courſe recover its loſt Rankneſs and Fertility eſpecially if we take into the Account the Circunſtance of Feeding it off, by which it

* *Studio minuente Laborem.* Ov.

it is ſurpriſingly enriched. By this Means the Farmer, who may, perhaps, have no great Quantity of Meadow Ground, will have Plenty of fine Hay for his Horſes: And in the Spring the Clover and Rye-graſs will come up three Weeks or a Month before his natural Graſs: So that as ſoon as his Turneps are fed off, his Bullocks that he is preparing for early Markets, will *live in Clover*, and not only delight the Eye of every Spectator, but make a great Addition to the Owner's Wealth. And all thoſe, who obſerve theſe, Directions, will always be amply rewarded by the gratefull Earth; which will every Year, produce them a Crop of Wheat or Barley, Oats or Rye, Turneps or Clover: So that if our Lands do not, without Intermiſſion, furniſh us with Crops of Grain, or which is equivalent, large Quantities of artificial Graſs; it is owing to our Ignorance and Sloth, and becauſe we do not properly cultivate * them.

This Method of ſowing Turneps, Barley, Clover and Wheat ſucceſſively, *&c.* is a Method ſo deſervedly approv'd in ſome Counties; where tho' the Lands in general are now lett at 10 or 12 Shillings an Acre; yet

* *Non igitur fatigatione, quemadmodum Plurimi crediderunt, nec ſenio; ſed noſtra ſcilicet inertia minus benigna nobis arva reſpondent. Licet enim majorem fructum percipere ſi frequenti & tempeſtiva & modica ſercoratione terra refoveatur.* Col.

yet the Farmers are allowed to make upon a Medium, three Times the Rent, of their Corn, the Profits of their fat Bullocks, Sheep, Dairy of Cows and Hogs. A Judgment may be formed of the Number of Acres annually to be appropriated to Turneps, Barley, Clover and Wheat from this general Direction.

Suppose a Farm, *E. G.* conſiſts of 200 Acres of ploughed Ground, excluſive of old Paſture, it cannot be managed to greater Advantage than by having 50 Acres of Turneps, 50 Acres of Barley, 50 Acres of Clover, and 50 Acres of Wheat. It muſt, however, be ſuppoſed that the Farmer makes a ſufficient Quantity of Muck to ſpread over the Clover-land; otherwiſe it will be as well to ſow Part of it with Barley, Oats or White-peaſe. Let it likewiſe be ſuppoſed that this Farm, now under Conſideration, is what is, in many Places, called, a Dairy-farm, where there are fifty or ſixty Cows kept. Fifty Acres of Turneps are highly ſufficient for their Winter-proviſion, and are productive of as much Profit to the Farmer as the Summer-paſture. By this Means the Cows will always be kept in good Order, without Hay, and will be found as profitable in the Winter as the Summer, if that cold Seaſon

be

be the Time choſen by the Farmer for their Coming in with Calf.

I have known many Farmers lett a Dairy of Cows, thus managed, for three Pounds a Year, and ſometimes for three Pounds ten Shillings a Cow, which are very conſiderable Sums, and very often equal to the Rent of the whole Farm.

There are ſome Inſtances, indeed, where the Summer-paſture ſo greatly over-portions the ploughed Ground, that the Farmer is obliged to ſow almoſt Half of it with Turneps, to enable him to fodder his Stock in Winter. In that Caſe the Method mentioned above is not altogether an eligible One. But in all other Caſes it may be imitated as nearly as the Nature of the Farm, and the Convenience of the Tenant will admit.

Having mentioned a Dairy, I would beg leave to recommend the Barrel-churn, which is in the Form of a common Barrel; with Pieces of Wood called Daſhes in the Inſide, to give a Check to the Motion of the Cream. They have Irons fixed to each End, and the largeſt of them are turned by two Men, after the Manner of common Grinding Stones. Some of theſe Churns are of ſo large a Size

as to churn four or five Stone of Butter at a Time.

This Method of keeping a Dairy of Cows, or fattening of Bullocks, or both, is ſo advantageous and neceſſary towards producing good Crops of Corn and Turneps, that one Branch cannot be carried on without the other.

But there is another material Article, which, as it greatly contributes towards enriching of Land, deſerves to be attentively conſidered, I mean the Tath of Sheep.

With Reſpect to the growing of Corn or Turneps, the Benefit, ariſing from the Tath of a thouſand Sheep, is generally laid at fifty Pounds a Year. But with Regard to theſe harmleſs Animals it is to be obſerved that there are frequently large Tracts of Land, which lye uncultivated for their Feed and Paſturage, and which are thought abſolutely neceſſary to continue in that State, otherwiſe it is imagined that ſuch a Number could not poſſibly be kept. But I am of Opinion, that if the Ground were ploughed and cultivated, in the Manner mentioned in this ſhort Treatiſe, a much larger Number might be maintained; which would not only be a Benefit to the Farmer and Owner, with Reſpect to the Wool

Wool and Lamb, but with Reſpect alſo to Growth of Corn and Turneps.

If a Sheep-walk is the Property of one Owner, excluſive of Common-rights, I think there can be no Objection to a Propoſal for incloſing it. Sometimes, indeed, it happens that Sheep-walks are upon Commons, to which many others have a Right; and in that Caſe they muſt remain as they are, unleſs the ſeveral Proprietors agree to the Expedient of incloſing. But where there is no Objection of this Sort, there are the ſtrongeſt Reaſons for adopting the Method I have been recommending.

*FINIS.*

ERRATUM.

*Page* 18, *line* 28, *for* inflexi *r.* inflexi.